

Proposed Remedial Action Plan
for
Operable Unit 3

Marine Corps Air Station
Cherry Point, North Carolina



Atlantic Division
Naval Facilities Engineering Command
Contract Number N62472-90-D-1298
Contract Task Order 0190

June 1996



Brown & Root Environmental

A Division of Halliburton NUS Corporation

**PROPOSED REMEDIAL ACTION PLAN
FOR
OPERABLE UNIT 3**

**MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

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LIST OF ACRONYMS AND ABBREVIATIONS

ARAR	Applicable or Relevant and Appropriate Requirement
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COPC	Chemical of Potential Concern
CSF	Cancer Slope Factor
DON	Department of Navy
FS	Feasibility Study
HI	Hazard Index
HQ	Hazard Quotient
IAS	Initial Assessment Study
ICR	Incremental Cancer Risk
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
kg	Kilogram
MCAS	Marine Corps Air Station
NADEP	Naval Aviation Depot
NCDEHNR	North Carolina Department of Environment, Health, and Natural Resources
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
NPW	Net Present Worth
O&M	Operation and Maintenance
OU3	Operable Unit 3
PAH	Polynuclear Aromatic Hydrocarbon
POL	Petroleum, Oil, and Lubricants
PRAP	Proposed Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RfD	Reference Dose
RFI	RCRA Facility Investigation
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SMP	Site Management Plan
STP	Sewage Treatment Plant

TBC	To Be Considered
UCL	Upper Confidence Level
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

PROPOSED REMEDIAL ACTION PLAN

Introduction

This Proposed Remedial Action Plan (PRAP) identifies the Marine Corps Air Station (MCAS) Cherry Point and the Department of the Navy's (DON) preferred alternative for the remediation of contaminated soil and groundwater at Operable Unit (OU) 3 at MCAS Cherry Point, North Carolina. OU3 consists of two sites: Site 6 - Former Fly Ash Ponds and Site 7 - Old Incinerator and Adjacent Area.

The purpose of this PRAP is to:

- describe the remedial alternatives considered
- identify the preferred alternative for OU3 and explain the rationale for preference
- solicit public review and comments on the remedial alternatives
- provide information on how the public can be involved in the remedial alternative selection process.

MCAS Cherry Point and the DON are issuing this PRAP as part of the public participation responsibility established under Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and as part of the Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent and consistent with the Installation Restoration Program (IRP). The RCRA Administrative Order on Consent is encompassed by the MCAS Cherry Point RCRA permit.

The PRAP summarizes information that can be found in greater detail in the Remedial Investigation (RI) Report, the Feasibility Study (FS) Report, and other documents referenced in the RI and FS reports. A list of other relevant documents prepared for OU3 is provided under the description of previous investigations at OU3 on page 8 of this plan. The DON encourages the public to review these documents to gain a more comprehensive understanding of the sites. The administrative record file, which contains information on which the selection of the remedial alternative will be based, is available for public review at the Havelock Public Library and the MCAS Cherry Point Library. The public is invited to review and comment on the administrative record and the PRAP.

After the public comment period has ended and the information submitted during this time has been reviewed and considered, MCAS Cherry Point and the DON, with assistance of the United States Environmental Protection Agency (USEPA) Region IV and the North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR), will select a remedy for OU3. The Final Record of Decision

(ROD) may recommend a different remedial alternative than is presented in this plan, depending upon new information or public comments.

Operable Unit Description

MCAS Cherry Point is part of a military installation located in southeastern Craven County, North Carolina, just north of the town of Havelock. The site is located on an 11,485-acre tract of land bounded on the north by the Neuse River, on the east by Hancock Creek, and on the south by North Carolina Highway 101. The irregular western boundary line lies approximately three-quarters of a mile west of Slocum Creek. The general location of the Air Station is shown on Figure 1.

The study area, OU3, is one of 13 operable units within MCAS Cherry Point. An "operable unit," as defined by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), is a discrete action that comprises an incremental step toward comprehensively addressing site problems. The cleanup of a site or facility can be divided into a number of operable units, depending on the complexity of the problems associated with the facility. Operable units may address geographic portions of a site, specific site problems, or initial phases of an action. With respect to MCAS Cherry Point, operable units were developed to combine one or more individual sites where Installation Restoration Program (IRP) activities are or will be implemented (OU1 through OU11, and OU13). One operable unit, OU12, has been deferred to the State of North Carolina Underground Storage Tank Program. In the case of OU3, the sites listed below were grouped together because of their geographic proximity and similar site histories.

- Site 6 - Fly Ash Ponds
- Site 7 - Old Incinerator and Adjacent Area

OU3 is located in the west-central portion of the Air Station north of OU2, as shown on Figure 2. It is bounded by the MCAS Cherry Point Sewage Treatment Plant (STP) to the south, Roosevelt Boulevard to the east, Slocum Creek Road to the north, and Slocum Creek to the west (Figure 3).

Operable Unit Background

The OU3 sites have been grouped into one operable unit because of their proximity to each other (Sites 6 and 7 are within 100 feet of each other) and because of their similar site histories.

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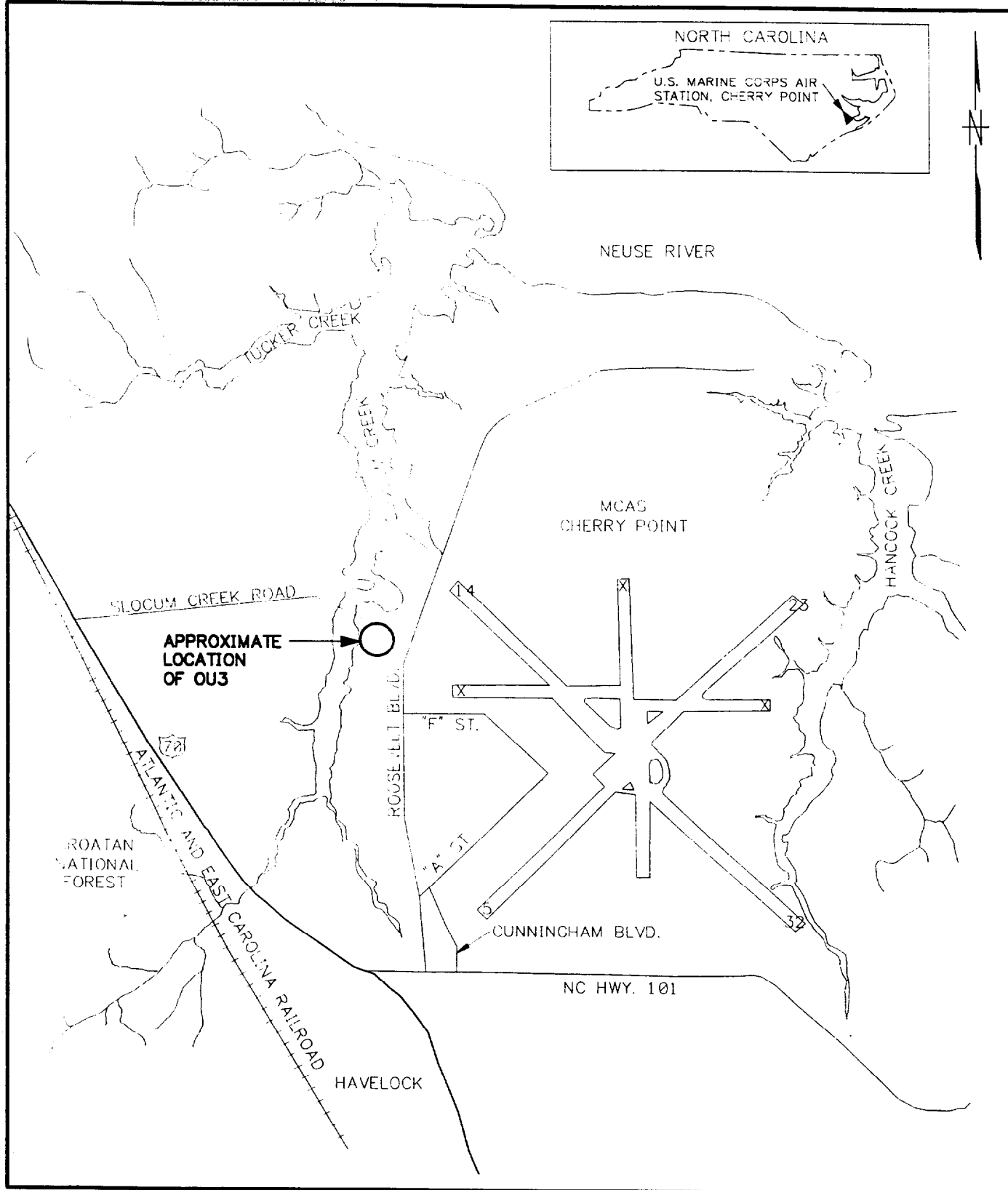
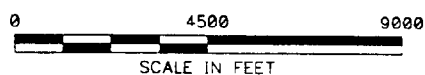


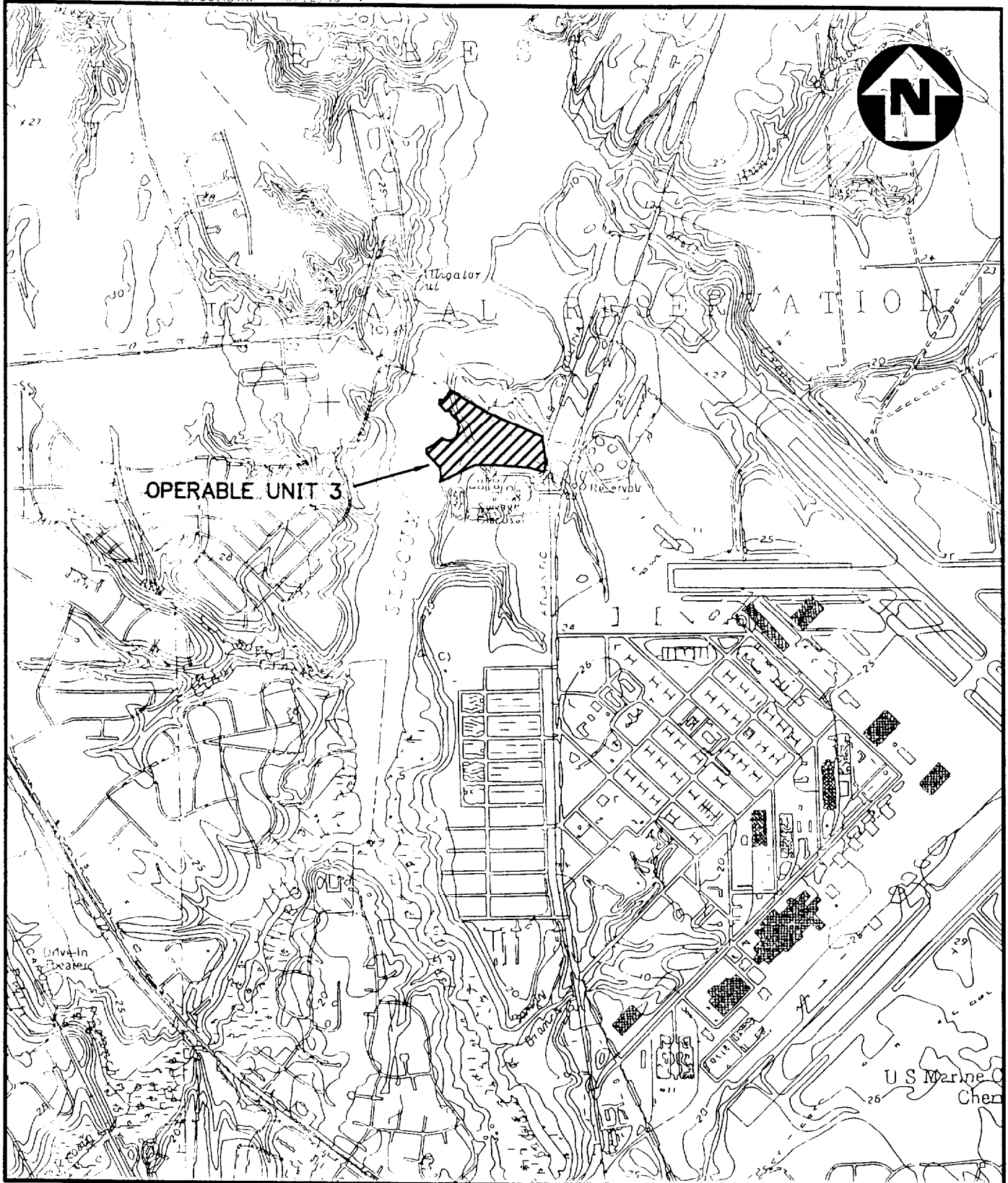
FIGURE 1

LOCATION MAP
MCAS - CHERRY POINT, NC




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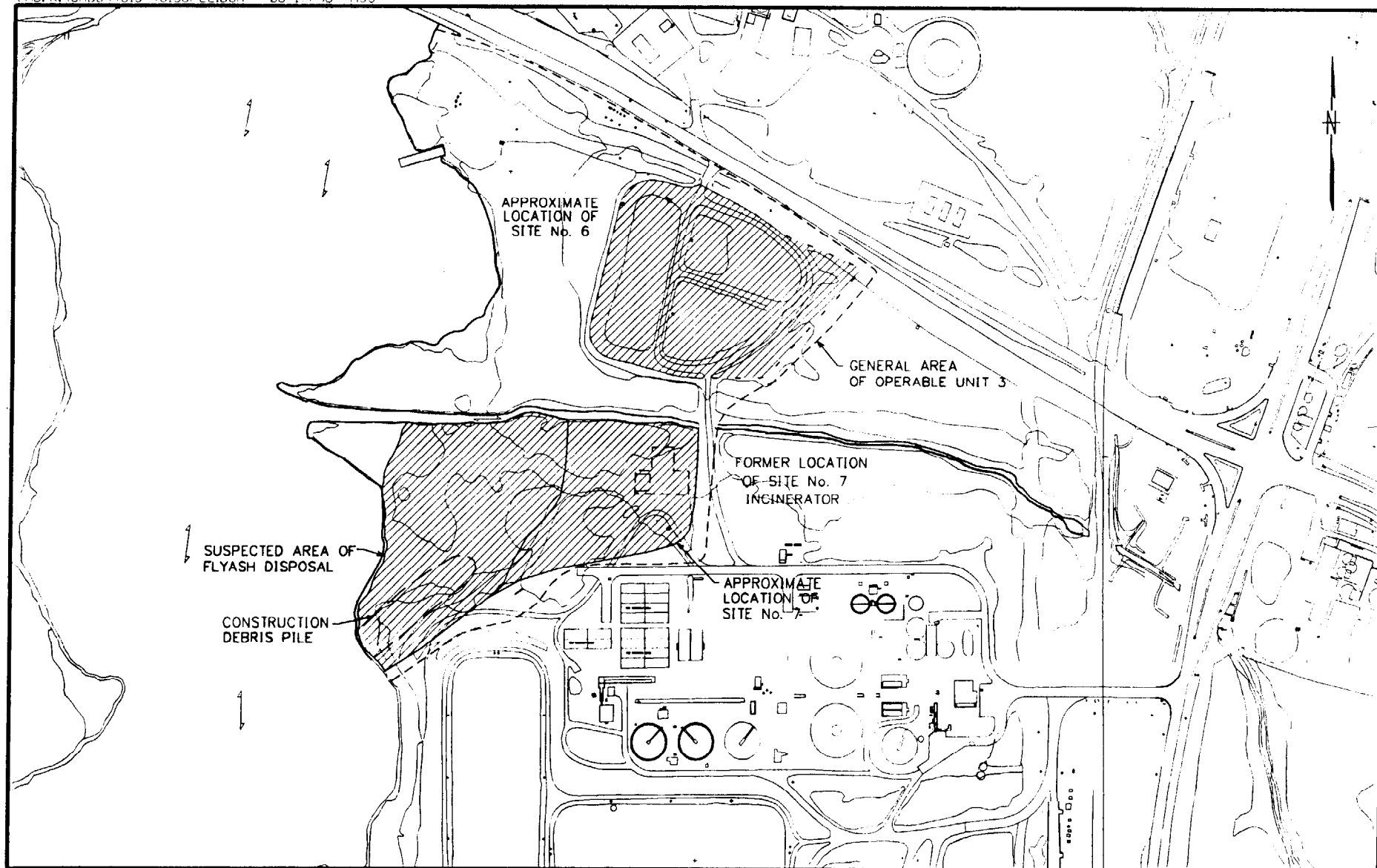
OPERABLE UNIT 3
GENERAL AIR STATION MAP
-MCAS CHERRY POINT, NORTH CAROLINA

FIGURE 2

0 2000 4000
SCALE IN FEET



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SITE LAYOUT MAP
OU3
MCAS CHERRY POINT, NORTH CAROLINA



FIGURE 3



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Site 6 - Former Fly Ash Ponds

Site 6 consists of three unlined ponds located south of Slocum Road. The ponds cover about 2.5 acres and are about 10 feet deep. Site 6 reportedly received a slurry of fly ash and cinders from the 1940s until about 1970 and lime/alum sludge from the potable water treatment plant from December 1980 to mid-1994. At the current time, no disposal activities occur at the site, although residual lime/alum sludge (and sometimes rainwater) may exist in the ponds.

Site 7 - Old Incinerator and Adjacent Area

Site 7 was an incinerator and open burning ground that covered approximately 5 acres. It is bounded by the Sewage Treatment Plant (STP), Luke Rowe's Gut, and Slocum Creek. From 1949 until 1955, waste petroleum, oil, and lubricants (POL), Naval Aviation Depot (NADEP) wastes, and other wastes such as municipal refuse were burned either in the incinerator or on the ground adjacent to the unit. No records were kept as to the types or quantities of waste disposed at this unit. Fly ash was disposed of at this site but is mixed with other waste/fill material. The site is currently vegetated.

Previous Investigations at MCAS Cherry Point

Investigations at MCAS Cherry Point are conducted under the Department of Defense (DOD) IRP and the Department of the Navy Assessment and Control of Installation Pollutants (NACIP) Program, which were started in 1980. Funding to pay for such investigations is allocated for DOD sites under the Defense Environmental Restoration Account (DERA).

The IR/NACIP programs parallel CERCLA, otherwise known as Superfund. Under the Superfund Program, abandoned waste sites that potentially contained hazardous constituents underwent several phases of environmental investigation that ultimately determined the need for a remedy, and if necessary, the selection and implementation of the remedy for the site. The phases of investigation include the Preliminary Assessment/Site Inspection (PA/SI), Remedial Investigation (RI), Feasibility Study (FS), Record of Decision (ROD), and Remedial Design/Remedial Action (RD/RA). Superfund also has provisions for Interim Measures (IM) that can be implemented if a site poses an immediate threat to the environment.

CERCLA (IRP)

The first IRP objective is to collect data and evaluate historical evidence indicating the existence of hazardous constituents that may have contaminated the facility or that pose an imminent health hazard on or off the facility. The Initial Assessment Study (IAS) was performed at MCAS Cherry Point in 1983 to meet

this objective. The IAS identified 14 suspect sites for further investigation. The Superfund Amendments and Reauthorization Act (SARA) of 1986 required each facility listed on the Federal Agency Hazardous Waste Compliance Docket (MCAS Cherry Point is included on the docket) to perform a PA. The IAS was essentially equivalent to, and served as, the PA under the Superfund Program.

The second IRP objective is to determine, via sampling and analyses activities, whether specific constituents identified in the IAS, and possibly other contaminants, exist in concentrations considered to be hazardous. SI and RI activities were performed at several of the sites during the mid-1980s to meet this objective. SI activities are limited data collection tasks to determine whether contamination exists, whereas RI activities are somewhat larger tasks to determine the nature and extent of contamination.

RCRA

The Resource Conservation and Recovery Act (RCRA) of 1976 established a national strategy for the management of ongoing solid and hazardous waste operations at active sites. Because MCAS Cherry Point engages in the generation and storage of hazardous wastes, the facility must be permitted under the jurisdiction of RCRA. The Hazardous and Solid Waste Amendments (HSWA) of RCRA, enacted in 1984, broadened the authority of RCRA, including requiring a multi-step corrective action process for releases of hazardous wastes to the environment.

The RCRA corrective action process closely resembles the CERCLA program.

<u>RCRA</u>	<u>CERCLA</u>	<u>Process</u>
RCRA Facility Assessment (RFA)	PA/SI	Release Identification
RCRA Facility Investigation (RFI)	RI	Release Extent Characterization
Corrective Measures Study (CMS)	FS	Remedy Evaluation
Corrective Measures Implementation (CMI)	RA	Remedy Implementation

The RCRA corrective action program also includes an interim measures (IM) step that may be conducted in cases where short-term actions are needed to respond to immediate threats.

In 1988, EPA performed a RFA at Cherry Point. The RFA identified 114 Solid Waste Management Units (SWMUs) and two other areas of concern (AOCs), some of which were sites already being investigated under the IRP.

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In 1989, the Navy entered into a RCRA Administrative Order on Consent with the USEPA to agree to perform an RFI at 32 of the 114 identified SWMUs. The list included all of the sites that were previously being investigated as CERCLA sites under the IRP. In addition, the Administrative Order on Consent designated the USEPA as the lead regulatory agency of MCAS Cherry Point.

MCAS Cherry Point was placed on the National Priorities List (NPL) in December 1994. The investigations at each site are now being conducted to meet the requirements of both RCRA and CERCLA. The 32 IRP sites have been combined into 12 operable units by the DON. An additional operable unit, OU12, has been deferred to the State of North Carolina's underground storage tank program.

Other

In addition to the IRP activities being conducted, a total of 11 sites are being investigated as part of the DON Base Realignment and Closure (BRAC) Program. These sites are being investigated to determine whether environmental contamination exists that could affect construction and long-term use activities that are planned for the sites.

Previous Investigations at OU3

OU3 has been investigated over several years, and the results are presented in several reports. All of these documents may be found in the administrative record:

- Remedial Investigation Interim Report, October 1988 (NUS Corporation): Provides the results of groundwater, surface water, and sediment sampling conducted under the IRP.
- RCRA Facilities Investigation (RFI) - 21 Units, June 1993 (Halliburton NUS Environmental Corporation): Provides the results of soil and groundwater sampling and analysis conducted following the signing of the RCRA Consent Order.
- Phase II Technical Direction Memorandum, August 1993 (Halliburton NUS Corporation): Provides the results of additional soil and groundwater sampling conducted to address data gaps identified upon completion of the RFI.
- Remedial Investigation (RI) Report, June 1996 (Brown & Root Environmental): Presents the results of soil, groundwater, surface water, and sediment sampling conducted in 1994 and some supplemental groundwater and soil data collected in 1995 and 1996 as part of FS activities. Summarizes data collected from previous investigations.

Remedial Investigation

The following sections summarize the nature and extent of contamination based on more recent sampling events.

Surface and Subsurface Soil

Contamination characteristics are quite different between Site 6 and Site 7. The soil material at Site 6 is relatively free of contamination. No distinct fly ash layers remain on site, although some black silty soil material was found in several borings around the ponds.

For Site 7, the data indicate that the area immediately surrounding the former incinerator is fairly clean; however, the heavier contaminated area lies between Luke Rowe's Gut and Slocum Creek. The soil/waste material at Site 7 contains a number of metals and/or polycyclic aromatic hydrocarbons (PAHs) and dioxins (by-products of combustion) at concentrations that exceed background concentrations. There were also some isolated areas of fuel-type constituents identified in the soil. Contaminated material and identified fill extends to a depth of about 10 feet in several locations. The surface soils contain PAHs, dioxins/furans and several metals (copper, chromium, lead, and zinc) in a sporadic pattern over the site. Neither PAHs nor dioxins/furans in the surface soil were detected as frequently or at concentrations as high as those in subsurface soil. The metal concentrations were similar throughout the soil column. Benzene, ethylbenzene, and xylenes, as well as some of the more soluble PAHs, were detected in one subsurface sample, indicating a localized area of soil contamination.

Groundwater

The groundwater at Site 6 is free of contamination at concentrations greater than Federal drinking water standards or state groundwater standards. The only exceptions are manganese and iron, for which standards are based on aesthetic concerns, such as taste and odor.

The groundwater at Site 7 contains benzene and several metals at concentrations greater than Federal or state standards. The benzene is identified in a distinct plume, whereas the detections of metals higher than standards are sporadic. There are also some isolated detections of solvents and other organics, but these compounds are not identified in the soil samples.

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Surface Water and Sediment

The surface waters and sediments are free of site-related contamination. An ecological assessment indicated that some metals and pesticides concentrations are above USEPA screening levels (i.e., levels that may present a concern). However, adverse impacts to the surrounding surface waters have not been noted.

Summary of Site Risks

As part of the RI, a baseline human health risk assessment and a preliminary ecological (plants, wildlife) risk assessment were conducted to evaluate the current or future potential risks to human health and ecological receptors resulting from existing site contaminants.

Baseline Human Health Risk Assessment

The purpose of the human health risk assessment conducted for OU3 was to determine whether the observed chemical concentrations pose a significant threat to potential human receptors. A risk assessment consists of five major components (data evaluation, exposure assessment, toxicity assessment, risk characterization, and uncertainty analysis).

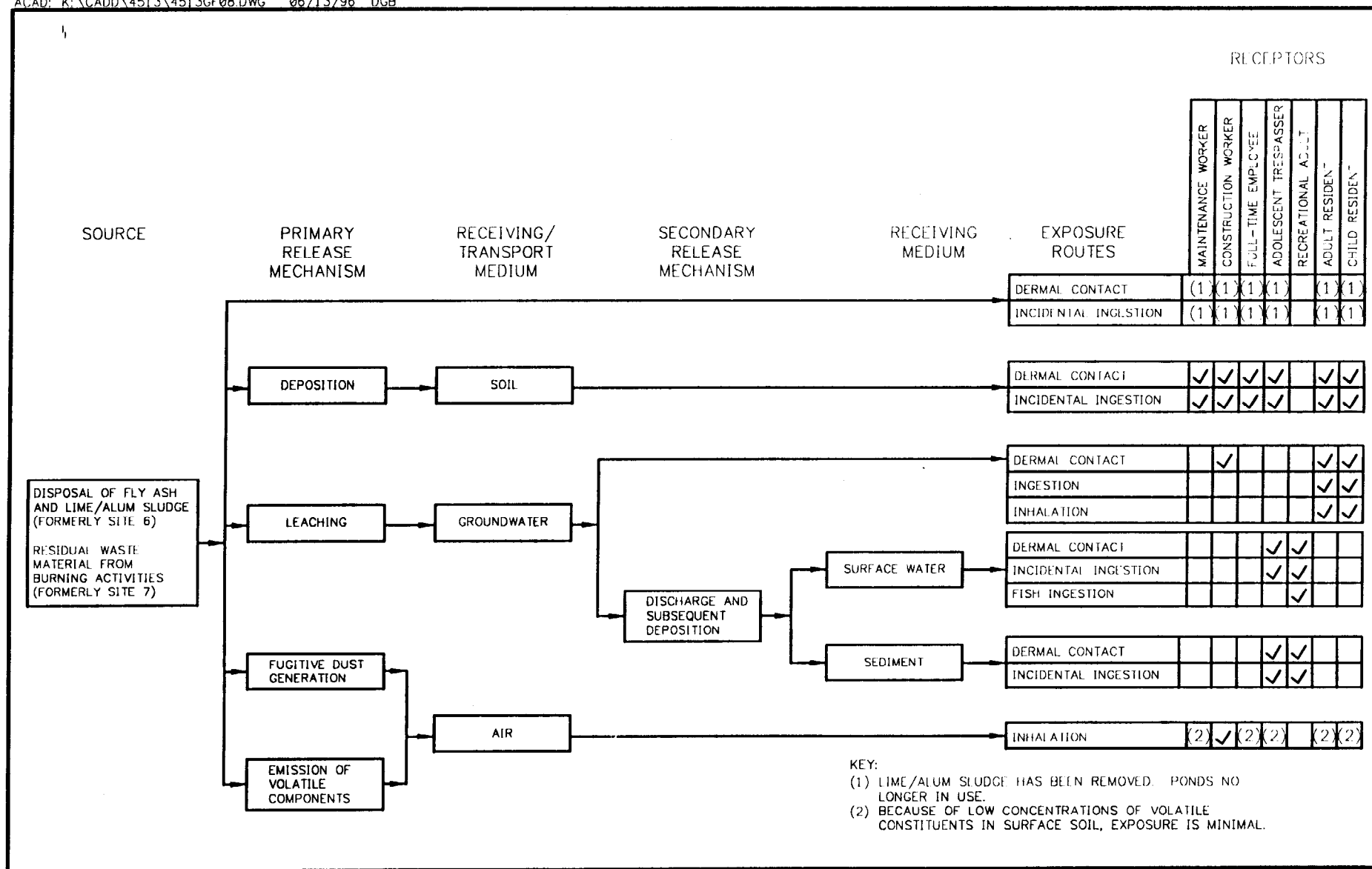
The data evaluation task consisted of selecting chemicals of potential concern (COPCs) based on their distribution and frequency of detection in the various media at OU3, and determining whether they were present at concentrations that exceeded a risk-based screening value. Chemicals selected as COPCs included metals, PAHs, dioxins/furans, benzene, and a few other volatile organic chemicals and pesticides.

A conceptual site model, as shown in Figure 4, was developed for OU3 to define potential receptors and the routes by which they are likely to be exposed. Identified receptors under current land use conditions included maintenance workers, trespassers, and recreational users of Slocum Creek. In addition, residents, full-time employees, and construction workers were also considered under future land use conditions. The future residential exposure pathway for soil or groundwater at Site 7 and groundwater at Site 6 is extremely unlikely because the anticipated land use at Site 7 is strictly for storage of construction materials and ingestion of groundwater from the surficial aquifer is unlikely to occur because this aquifer is not used as a potable water source.

Risks were calculated using USEPA derived algorithms. For carcinogens, an incremental lifetime cancer risk (ICR) of $1E-6$ (a one-in-one million risk) is generally considered the point at which the agency evaluates "unacceptable risk." The USEPA generally considers risks within the target range of $1E-6$ to $1E-4$ to be "acceptable," whereas risks greater than $1E-4$ are generally considered to be "unacceptable." For

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CONCEPTUAL SITE MODEL
OPERABLE UNIT 3
MCAS CHERRY POINT, NORTH CAROLINA

FIGURE 4



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noncarcinogens, a hazard index (HI) of 1 is considered to represent the breaking point between "acceptable" and "unacceptable" risks. Hazard indices are not statistical values like cancer risks.

Cumulative risks for Site 6, shown in Table 1, indicate that they are within the target risk range except for the adult resident (hazard index) and child resident (hazard index and cancer risk). The majority of the risk was due to ingestion of surficial aquifer groundwater containing arsenic, manganese, and dieldrin.

A 30-year residential exposure scenario was evaluated for Site 6. This scenario is highly unlikely to occur as long as the property remains in military use. The incremental cancer risk (ICR) associated with exposure to soil for this receptor assume 6 years of exposure as a small child and an additional 24 years of exposure as an older child and adult. The ICR for the adult receptor at Site 6 under this scenario was $3.1\text{E-}4$, which exceeds the USEPA target risk range. In addition, the hazard index exceeded 1.

Cumulative risks for Site 7, shown in Table 1, indicate that they were within the target range except for the construction worker (hazard index), adult resident (hazard index and cancer risk), and child resident (hazard index and cancer risk). The majority of the carcinogenic risks were due to the ingestion of groundwater containing arsenic, while the primary noncarcinogenic risks were due to future residents ingesting soil and groundwater containing metals.

A 30-year residential exposure scenario was also evaluated for Site 7. The ICR for the adult receptor at Site 7 under this scenario was $5.6\text{E-}4$, which exceeds the USEPA target risk range. The hazard index exceeded 1.

Cumulative risks to recreational users and to trespassers due to exposure to surface water and sediment, shown in Table 1, indicate that they were within or below the target range.

Ecological Assessment

As part of the ecological assessment performed at this site, areas of wetlands (*Carex* sp. Marsh) were identified in a low area of Site 7. Wet pine flatwoods were located north of Luke Rowe's Gut adjacent to Slocum Creek. Areas classified as Coastal Plain Small Stream Swamp areas were identified on both sides of Luke Rowe's Gut, and a small area classified as Tidal Freshwater Marsh was located on both sides of the mouth of Luke Rowe's Gut.

An ecological conceptual site model is presented (Figure 5) detailing sources, release mechanisms, transport media, exposure mechanisms, exposure routes, and receptors. An ecological assessment was performed using the maximum concentrations of chemicals detected in surface water and sediment in both Slocum

TABLE 1
SUMMARY OF CUMULATIVE RISKS
OPERABLE UNIT 3
MCAS CHERRY POINT, NORTH CAROLINA

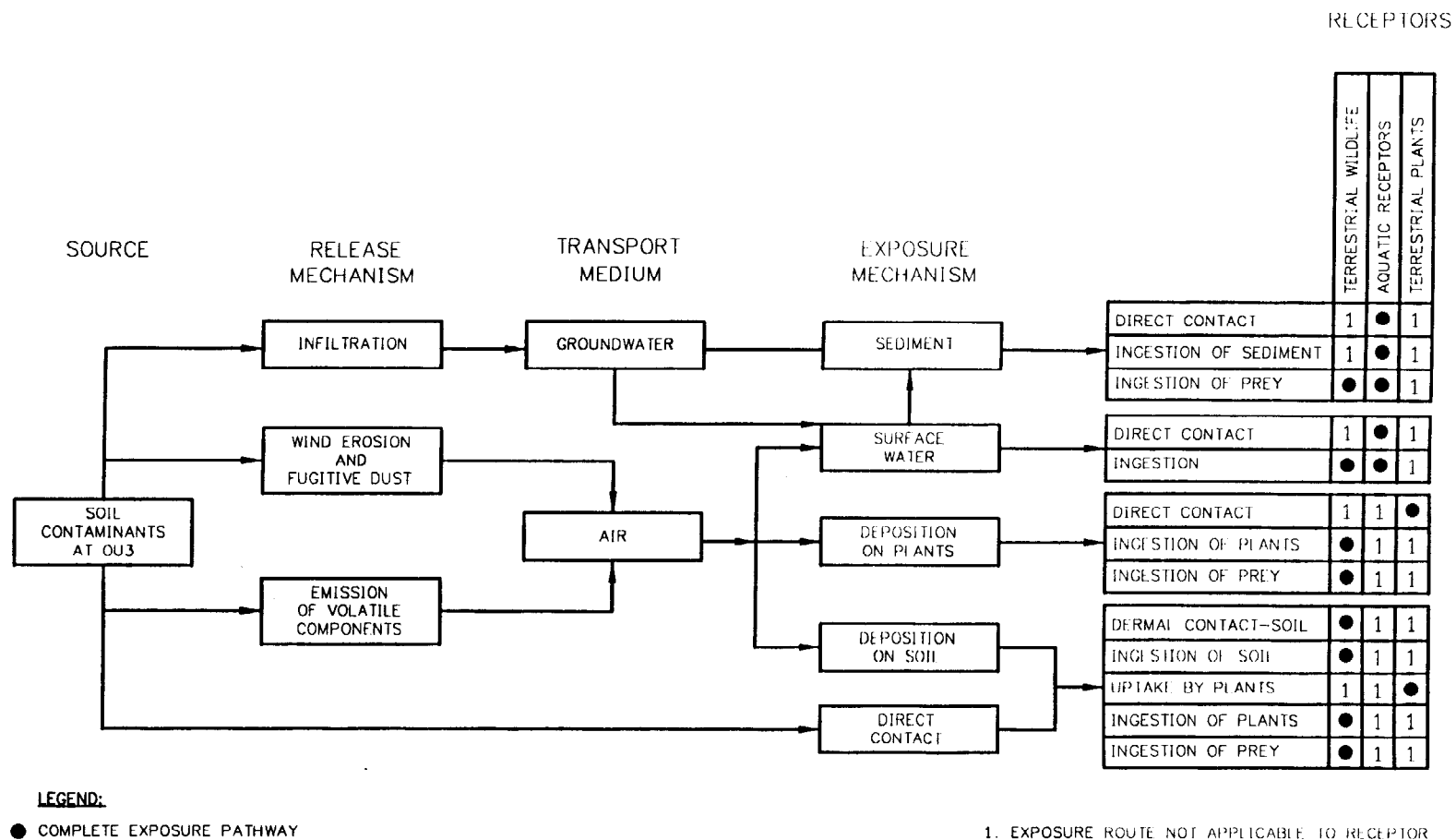
Receptor	Exposure Pathway	Site 6		Site 7	
		Cancer Risk	Hazard Index	Cancer Risk	Hazard Index
Maintenance Worker	Direct contact with surface soil.	3.7E-06	0.0324	2.7E-6	0.12
Construction Worker	Direct contact with soil and groundwater; inhalation of fugitive dust.	4.4E-6	0.57	4.5E-6	7.1 ^{*(1)}
Adolescent Trespasser	Direct contact with surface soil.	9.9E-7	0.015	7.7E-7	0.07
	Direct contact with Slocum Creek water and sediment ⁽²⁾ .	2.3E-7	0.0061		
	Direct contact with Luke Rowe's Gut water and sediment ⁽²⁾ .	1.8E-7	0.0046		
Adult Recreational User	Direct contact with Slocum Creek water and sediment; Ingestion of fish ⁽²⁾ .	1.9E-6	0.0343		
Full-Time Employee	Direct contact with surface soil.	2.8E-5	0.19	2.1E-5	0.80
Adult Resident (6 year)	Direct contact with groundwater and surface soil.	4.9E-5	1.8*	1.2E-4*	9.4*
Child/Adult Resident (30 year)	Direct contact with groundwater and surface soil.	3.1E-4*	1.9*	5.6E-4*	9.4*
Child Resident	Direct contact with groundwater and surface soil.	1.9E-4*	7.6*	3.3E-4*	33.8*

1 An asterisk indicates an "unacceptable" risk.

2 This exposure pathway was evaluated only once.

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ECOLOGICAL CONCEPTUAL SITE MODEL
OPERABLE UNIT 3
MCAS CHERRY POINT, NORTH CAROLINA

FIGURE 5


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Creek and Luke Rowe's Gut and soil data. Groundwater sampling data were used qualitatively. The ratio of the concentration to a reference toxicity concentration is known as a Hazard Quotient (HQ). HQs greater than 1 indicate the potential for adverse ecological effects in sensitive species.

In Luke Rowe's Gut, the surface water concentrations of manganese and mercury resulted in an HQ greater than 1. In Slocum Creek surface water, an HQ greater than 1 was estimated for mercury, whereas in the sediment, barium was of potential concern. In addition, there are two metals in Slocum Creek sediment for which no criteria were available (beryllium and vanadium), but which could also exert an unidentified ecological pressure on biota.

When the same process was applied to surface soils, it was found that a number of metals, PAHs, dioxins/furans, 4,4'-DDD, and dieldrin were present at maximum concentrations that resulted in HQs greater than 1. Preliminary dose calculations on eastern cottontail rabbits, red foxes, and red-tailed hawks indicated that these species could be at risk under both worst-case (use of maximum concentrations) and average-case (use of average concentrations) assumptions.

The results of the ecological assessment indicate that some contaminants are present in OU3 surface water, sediment, and surface soil in concentrations that exceed screening benchmarks. However, risks implied by most of these exceedances are mitigated by several factors. Only a few COPCs were identified in Slocum Creek and Luke Rowe's Gut surface water and sediment. Most of these had fairly low HQs, and mercury (HQ = 18.0) was present in only one Slocum Creek surface water sample. Most dioxins/furans with excessive HQs also had low frequencies of detection in soil. Several metals in soil had high HQs but were detected in areas of marginal ecological habitat. Migration of these contaminants to surface water or terrestrial habitats of better ecological quality appears to be limited. Risk numbers generated from the food-chain models were mainly driven by uncertainty in toxicity data, resulting in the probable overestimation of risk. Also, food-chain modeling was based on worst-case exposure assumptions, the most likely result of which is the overestimation of risk. Concentrations of some contaminants, mainly metals in soil, may pose potential risks to ecological receptors at OU3. However, potential risks do not appear to be widespread and do not warrant remediation based on ecological risks alone.

Feasibility Study

Following completion of the RI, an FS was conducted at OU3. The FS evaluated remedial action alternatives for contaminated environmental media that could be employed to minimize risks associated with OU3. The FS evaluated seven alternatives which included no action, the implementation of institutional controls, and five additional treatment/containment options. The FS evaluated the short- and long-term effectiveness,

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compliance with applicable regulations, costs, and other criteria for each of the remedial alternatives. From this evaluation a preferred alternative was identified and is presented in this PRAP.

Scope and Role of the Proposed Remedial Action Alternatives

OU3 is one of 13 operable units designated by the DON at MCAS Cherry Point. One operable unit, OU12, has been deferred to the State of North Carolina's underground storage tank program. The remaining operable units at the MCAS are being investigated as part of a comprehensive Air Station investigation. The timing and co-ordination of these investigations have been addressed in the MCAS Cherry Point Site Management Plan (SMP). The estimated schedule for remedial investigation, design, and construction activities for the operable units at Cherry Point extends past the year 2000.

OU3 includes the contaminated soils, sediments, surface waters, and groundwater in the areas of the Fly Ash Ponds (Site 6) and the Old Incinerator and Adjacent Area (Site 7). The principal risks to human health at OU3 result from potential exposure to contaminated soil (Site 7) and groundwater (Sites 6 and 7) under a future residential exposure scenario. In addition, the potential future exposure of construction workers to contaminated soil at Site 7 and groundwater also produces risks to human health.

The objectives of the remedial action for OU3 are as follows:

- Protection of human receptors from adverse health effects that may result from dermal contact and incidental ingestion of contaminated surface soils and waste/fill material.
- Protection of human receptors from adverse health effects that may result from dermal contact, ingestion, and inhalation of contaminants in the groundwater in the surficial aquifer beneath OU3.
- Mitigation of contaminant migration from OU3 into the environment.

Alternatives were developed to meet these objectives based on site-appropriate technologies and process options, land use scenarios for OU3, exposure scenarios, and remediation (cleanup) levels developed for OU3.

Summary of Alternatives

Various technologies and process options were screened and evaluated in the FS. Ultimately, seven remedial action alternatives were developed and are listed as follows:

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- Alternative 1 - No Action at Site 6 and Site 7.
- Alternative 2 - Institutional Controls at Site 6 and Site 7.
- Alternative 3 - In-situ Fixation/Solidification of Surface Soils at Site 7, and Institutional Controls at Site 6 and Site 7.
- Alternative 4 - Excavation and Offsite Disposal of Surface Soils at Site 7, and Institutional Controls at Site 6 and Site 7.
- Alternative 5 - Excavation, Onsite Ex-situ Fixation/Solidification, and Reuse as Fill of Surface Soils at Site 7, and Institutional Controls at Site 6 and Site 7.
- Alternative 6 - Soil Cover at Site 7 and Institutional Controls at Site 6 and Site 7.
- Alternative 7 - Partial Dewatering at Site 7, Excavation and Offsite Disposal of Surface/Subsurface Soils at Site 7, and Institutional Controls at Site 6 and Site 7.

A brief description and the estimated cost of each alternative follows:

Alternative 1 - No Action at Site 6 and Site 7

Capital Cost: \$0

Annual Operation and Maintenance (O&M) Cost: \$0

Net Present Worth: \$0

Time to Implement: None

The No Action Alternative is required under CERCLA. Under this alternative, no actions would be performed to reduce the toxicity, mobility, or volume of the contaminated soil or groundwater at OU3.

Since contaminants would remain at OU3 under this alternative, the NCP requires the lead agency to review the effects of this alternative at least once every 5 years.

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Alternative 2 - Institutional Controls at Site 6 and Site 7

Capital Cost: \$27,000

Annual O&M Cost: \$22,000

Net Present Worth: \$470,000

Time to Implement: Less than one year

Institutional controls include maintaining records of the contamination at OU3 in the MCAS Cherry Point Master Plan, fencing, monitoring, and complying with OSHA regulations during (future) construction on site.

In addition to locations of contaminants, the records in the Master Plan would include specific restrictions for site use, including land and groundwater. Fencing would be installed to restrict access to portions of Site 7, and warning signs would also be placed along the boundary of the site to minimize human exposure to contaminated media. Monitoring would consist of the sampling of groundwater at Sites 6 and 7 and sediment and surface waters in Slocum Creek and Luke Rowe's Gut to assess the migration of contaminants from OU3 into the environment. Finally, future construction activity would be conducted in compliance with OSHA requirements to protect construction workers (particularly at Site 7) from exposure to contaminants in the soils.

A site review would be conducted every 5 years to evaluate the site status and provide direction for further action, if deemed necessary.

Alternative 3 - In-Situ Fixation/Solidification of Surface Soils at Site 7 and Institutional Controls at Site 6 and Site 7

Capital Cost: \$2,340,000

Annual O&M Cost: \$22,000

Net Present Worth: \$2,800,000

Time to Implement: One to two years

Waste/fill and metals-contaminated surface soils would be mixed in-place with water and fixating/solidifying agents such as lime or portland cement. This material would comprise approximately 241,000 square feet and would be 2 feet deep at Site 7. After approximately 10 days of curing, the hardened, soil/lime or soil/cement mixture would be covered with a 1-foot layer of topsoil and then seeded. Because of potential volume increases in the mixed soil, a rip-rap layer (consisting of rock fragments) might be used for slope stability. Institutional controls (as discussed in Alternative 2) would be implemented and would include restricting future site usage, monitoring, and reviewing existing site conditions every 5 years.

Alternative 4 - Excavation of Surface Soils and Offsite Disposal at Site 7, and Institutional Controls at Site 6 and Site 7

Capital Cost: \$6,800,000
Annual O&M Cost: \$22,000
Net Present Worth: \$7,300,000
Time to Implement: One to two years

Under Alternative 4, approximately 18,000 cubic yards of waste/fill materials and metals-contaminated surface soils at Site 7 would be excavated. The excavated waste/fill and soil would be disposed off site at a nonhazardous waste landfill. Approximately 18,000 cubic yards of clean fill would be placed and compacted in the excavated area. A 1-foot topsoil layer would be placed on top of the compacted fill, and the topsoil would be seeded. Institutional controls (as discussed in Alternative 2) would be implemented and would include restricting future site usage, monitoring, and reviewing existing site conditions every 5 years.

Alternative 5 - Excavation, Onsite Ex-situ Fixation/Solidification, Reuse as Fill of Surface Soils at Site 7, and Institutional Controls at Site 6 and Site 7

Capital Cost: \$3,800,000
Annual O&M Cost: \$22,000
Net Present Worth: \$4,300,000
Time to Implement: One to two years

Under Alternative 5, approximately 18,000 cubic yards of waste/fill and metals-contaminated surface soil would be excavated from Site 7 and mixed with water and fixating/solidifying agents such as lime or portland cement. The soil/solidifying agent mixture would then be backfilled into the excavated area and allowed to cure. After approximately 10 days of curing, the hardened soil/lime or soil/cement mixture would be compacted and covered with a 1-foot layer of topsoil and seeded. Because of potential volume increases in the mixed soil, a rip-rap layer might be used for slope stability. Institutional controls (as discussed in Alternative 2) would be implemented and would include restricting future site usage, monitoring, and reviewing existing site conditions every 5 years.

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Alternative 6 - Soil Cover at Site 7 and Institutional Controls at Site 6 and Site 7

Capital Cost: \$2,200,000
Annual O&M Cost: \$22,000
Net Present Worth: \$2,600,000
Time to Implement: Less than one year

Under Alternative 6, approximately 241,000 square feet of waste/fill and metals-contaminated surface soil at Site 7 would be covered with a 2-foot layer of clean fill and compacted. A 1-foot layer of top soil would be placed on top of the compacted fill and seeded. Institutional controls (as discussed in Alternative 2) would be implemented and would include restricting future site usage, monitoring, and reviewing existing site conditions every 5 years.

Alternative 7 - Partial Dewatering at Site 7, and Excavation Offsite Disposal of Surface/Subsurface Soils at Site 7, and Institutional Controls at Site 6 and Site 7

Capital Cost: \$16,300,000
Annual O&M Cost: \$22,000
Net Present Worth: \$16,500,000
Time to Implement: One to two years

A 2,200-foot-long slurry wall would be placed around the boundary of Site 7 to contain the shallow aquifer contaminated by volatile organic compounds and metals. This slurry wall would extend approximately 30 feet deep to the confining layer. Contaminated groundwater would be pumped from the shallow aquifer to dewater the area prior to excavation of soils. The pumped groundwater would be treated at the Industrial Wastewater Treatment Plant (IWTP) or Sewage Treatment Plant (STP) at the Air Station prior to discharge.

Approximately 42,000 cubic yards of waste/fill and contaminated surface soils would be excavated to a 5-foot depth from within the slurry wall containment to eliminate the sources of groundwater contamination. The excavated waste/fill and metals-contaminated surface soil would be disposed of at an approved offsite nonhazardous waste landfill. Clean fill would be placed, compacted, and seeded in the excavated area.

Institutional controls (as discussed in Alternative 2) would be implemented and would include restricting future use of the shallow aquifer, monitoring, and reviewing existing site conditions every 5 years.

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Evaluation of Alternatives

This section summarizes the comparative evaluation of remedial action alternatives for OU3. In order to identify the preferred alternative, the remedial alternatives were evaluated against seven of the nine evaluation criteria identified in the USEPA publication entitled "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA." These criteria are:

1. Overall protection of human health and the environment;
2. Compliance with applicable or relevant and appropriate requirements (ARARs);
3. Long-term effectiveness and permanence;
4. Reduction of toxicity, mobility, or volume through treatment;
5. Short-term effectiveness;
6. Implementability; and
7. Cost.

Two additional criteria, state acceptance and community acceptance, will be addressed in the ROD after comments are received from the USEPA, the State of North Carolina, and the community.

Both the USEPA and NCDEHNR (the state) have reviewed this PRAP and concur with the preferred alternative. However, based on new information and/or public comments, the DON, in consultation with the USEPA and the NCDEHNR, may modify the preferred alternative or select another remedial alternative. Therefore, the public is encouraged to review and comment on all of the remedial alternatives, as well as other information presented herein and in the RI and FS Reports. Following a review of the public comments, the community acceptance criterion will be addressed in the Responsiveness Summary within the ROD.

A complete summary of the alternatives evaluation is presented in Table 2. A glossary of the evaluation criteria is presented in Table 3. The following information summarizes and compares the proposed remedial alternatives using seven evaluation criteria.

Overall Protection of Human Health and the Environment

Alternative 1, the no action alternative, does not reduce potential risks to human health and the environment except through natural attenuation of the groundwater. Alternatives 2, 3, 4, 5, 6, and 7 all provide some means, other than natural attenuation, for reducing potential risks through institutional controls and surface soil remediation (Alternatives 3, 4, 5, 6, and 7). Alternative 7 involves subsurface soil remediation, which would provide even further protection of human health and the environment. However, the additional

TABLE 2

**SUMMARY OF EVALUATION OF ALTERNATIVES
PROPOSED REMEDIAL ACTION PLAN, CTO 190
OPERABLE UNIT 3, MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA**

Evaluation Criteria	Alternative 1: No Action at Site 6 and Site 7	Alternative 2: Institutional Controls at Sites 6 and 7	Alternative 3: In-situ Fixation/Solidification of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7	Alternative 4: Excavation and Offsite Disposal of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7
Threshold Criteria				
Overall Protection of Human Health and Environment	No reduction in potential risks except through natural attenuation of the groundwater.	Institutional controls and monitoring will reduce potential risks to human health and the environment under realistic exposure scenarios.	Institutional controls and monitoring provide some protection of human health and the environment. Fixation/solidification reduces potential exposure for humans and provides some protection for the environment.	Institutional controls and monitoring provide some protection of human health and the environment. Excavation removes source of potential health hazards.
Compliance with ARARs	No active effort to reduce contaminant levels to below federal or state ARARs.	Can potentially comply with human health standards. Does not comply with NCGWQ MCLs for secondary contaminants, but a waiver may be obtained.	If a NCGWQ waiver is obtained, this alternative would comply with all standards.	If a NCGWQ waiver is obtained, this alternative would comply with all standards.
Chemical-Specific ARARs				
Location-Specific ARARs	Not applicable.	Not applicable.	Can be designed to attain ARARs that apply.	Can be designed to attain ARARs that apply.
Action-Specific ARARs	Not applicable.	Not applicable.	Can be designed to attain ARARs that apply.	Can be designed to attain ARARs that apply.
Primary Balancing Criteria				
Long-term Effectiveness and Permanence	Allows risk to remain uncontrolled.	Protection of potential land users is questionable; success depends on administration of MCAS Master Plan.	Long-term effectiveness is questionable since in-situ solidification is a new remediation technique. This alternative should reduce risks to future land users.	Removal of contaminant source will reduce site hazards to potential land users. Institutional controls will further limit risks. Effectiveness is dependant on maintenance of the soil cover over the contaminated subsurface. Some liability concerns associated with offsite disposal facility.

TABLE 2 (Continued)
SUMMARY OF EVALUATION OF ALTERNATIVES
PROPOSED REMEDIAL ACTION PLAN, CTO 190
OPERABLE UNIT 3, MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

Evaluation Criteria	Alternative 1: No Action at Site 6 and Site 7	Alternative 2: Institutional Controls at Sites 6 and 7	Alternative 3: In-situ Fixation/Solidification of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7	Alternative 4: Excavation and Offsite Disposal of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7
Reduction of Toxicity, Mobility, or Volume through Treatment	No treatment.	No treatment.	The mobility of contaminants would be reduced. The toxicity and volume of contaminants would be unaffected.	The volume of contaminated surface soils at Site 7 would be reduced. Subsurface contamination toxicity, mobility, and volume would be unaffected.
Short-term Effectiveness	Not applicable, no short-term impacts/concerns at site.	Proper system management will limit short term hazards associated with institutional controls. Less than one year to implement.	Proper system management will limit short term hazards associated with contaminated media treatment. Less than one year to implement.	Proper system management will limit short term hazards associated with contaminated media treatment. Less than one year to implement.
Implementability	Nothing to implement. No monitoring to show effectiveness.	Enforcement of institutional controls at military site is proven to be effective and reliable. Monitoring will demonstrate effectiveness.	Treatability studies will be necessary to confirm adequate fixation/solidification can be achieved. Monitoring will demonstrate effectiveness.	Surface soil will need tested for acceptance at offsite disposal facility. Alternative consists of common remediation practices, which are readily available/implementable. Monitoring will demonstrate effectiveness.
Costs: Capital O&M NPW	 \$0 \$0 \$0	 \$27,000 \$22,000 (\$62,000 every fifth year due to site review) \$470,000	 \$2,340,000 \$22,000 (\$62,000 every fifth year due to site review) \$2,800,000	 \$6,800,000 \$22,000 (\$62,000 every fifth year due to site review) \$7,300,000
Modifying Criteria				
U.S. EPA/State Acceptance	Not believed to be acceptable to U.S. EPA and NCDEHNR.	<u>to be determined</u>	<u>to be determined</u>	<u>to be determined</u>

TABLE 2 (Continued)
SUMMARY OF EVALUATION OF ALTERNATIVES
PROPOSED REMEDIAL ACTION PLAN, CTO 190
OPERABLE UNIT 3, MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

Evaluation Criteria	Alternative 5: Excavation Onsite Ex-Situ Fixation/Solidification and Reuse as Fill of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7	Alternative 6: Soil Cover at Site 7; Institutional Controls at Sites 6 and 7	Alternative 7: Partial Dewatering at Site 7, Excavation and Offsite Disposal of Surface/Subsurface Soils, at Site 7; Institutional Controls at Sites 6 and 7
Threshold Criteria			
Overall Protection of Human Health and Environment	Institutional controls and monitoring provide some protection to human health and the environment. Fixation/solidification reduces potential exposure for humans and provides some protection for the environment.	Institutional controls and monitoring provide some protection to human health and the environment. Future land users would be protected from exposure to the contamination by the soil cover. The cover would also add a level of protection to the environment by reducing contaminant migration.	Institutional controls and monitoring provide some protection of human health and the environment. Excavation removes source of potential health hazards.
Compliance with ARARs Chemical-Specific ARARs Location-Specific ARARs Action-Specific ARARs	If a NCGWQ waiver is obtained, this alternative would comply with all standards. Can be designed to attain ARARs that apply. Can be designed to attain ARARs that apply.	If a NCGWQ waiver is obtained, this alternative would comply with all standards. Can be designed to attain ARARs that apply. Can be designed to attain ARARs that apply.	If a NCGWQ waiver is obtained, this alternative would comply with all standards. Can be designed to attain ARARs that apply. Can be designed to attain ARARs that apply.
Primary Balancing Criteria			
Long-term Effectiveness and Permanence	Long-term effectiveness is not a concern since the solids and matrix would be similar to pozzolonic composites. This alternative should reduce risks to future land users.	Soil cover will reduce risk to potential land users provided the soil cover is maintained. Institutional controls are necessary to maintain protection in the long term.	Removal of contaminated surface and subsurface soil will reduce site hazards to potential land users. Institutional controls will further limit risks. Some liability concerns associated with offsite disposal facility.
Reduction of Toxicity, Mobility, or Volume through Treatment	The mobility of contaminants would be reduced. The toxicity and volume of contaminants would be unaffected.	The toxicity, mobility, and volume of contaminants would remain unaffected. Natural attenuation through dilution/dispersion would be reduced.	The volume of contaminated surface and subsurface soils at Site 7 would be reduced. The toxicity and mobility would be unaffected.

TABLE 2 (Continued)
SUMMARY OF EVALUATION OF ALTERNATIVES
PROPOSED REMEDIAL ACTION PLAN, CTO 190
OPERABLE UNIT 3, MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

Evaluation Criteria	Alternative 5: Excavation Onsite Ex-Situ Fixation/Solidification and Reuse as Fill of Surface Soils at Site 7; Institutional Controls at Sites 6 and 7	Alternative 6: Soil Cover at Site 7; Institutional Controls at Sites 6 and 7	Alternative 7: Partial Dewatering at Site 7, Excavation and Offsite Disposal of Surface/Subsurface Soils, at Site 7; Institutional Controls at Sites 6 and 7
Short-term Effectiveness	Proper system management will limit short term hazards associated with contaminated media treatment and potential exposure to workers during alternative implementation. Less than one year to implement.	Proper system management will limit short term hazards associated with contaminated media treatment and potential exposure to workers during alternative implementation. Less than one year to implement.	Proper system management will limit short term hazards associated with contaminated media treatment. One year to implement.
Implementability	Treatability studies will be necessary to confirm adequate fixation/solidification can be achieved. Monitoring will demonstrate effectiveness.	Alternative consists of common remediation practices, which are readily available/implementable. Monitoring will demonstrate effectiveness.	Soil will need tested for acceptance at offsite disposal facility. Alternative consists of common remediation practices, which are readily available/implementable. Monitoring will demonstrate effectiveness.
Costs Capital O&M NPW	\$3,800,000 \$22,000 (\$62,000 every fifth year due to site review) \$4,300,000	\$2,200,000 \$22,000 (\$62,000 every fifth year due to site review) \$2,600,000	\$16,500,000 \$22,000 (\$62,000 every fifth year due to site review) \$16,500,000
Modifying Criteria			
U.S. EPA/State Acceptance	<u>to be determined</u>	<u>to be determined</u>	<u>to be determined</u>

TABLE 3
GLOSSARY OF EVALUATION CRITERIA

- **Overall Protection of Human Health and Environment** - Addresses whether or not an alternative provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- **Compliance with ARAR/TBCs** - Addresses whether or not an alternative will meet all of the applicable or relevant and appropriate requirements (ARARs), other criteria to be considered (TBCs), or other Federal and state environmental statutes and/or provide grounds for invoking a waiver.
- **Long-term Effectiveness and Permanence** - Refers to the magnitude of residual risk and the ability of an alternative to maintain reliable protection of human health and the environment over time once cleanup goals have been met.
- **Reduction of Toxicity, Mobility, or Volume through Treatment** - Addresses the anticipated performance of the treatment options that may be employed in an alternative.
- **Short-term Effectiveness** - Refers to the speed with which the alternative achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.
- **Implementability** - Addresses the technical and administrative feasibility of an alternative, including the availability of materials and services needed to implement the chosen solution.
- **Cost** - Includes capital and operation and maintenance costs. For comparative purposes, provides present-worth values.
- **USEPA/State Acceptance** - Evaluates the technical and administrative issues and concerns that the USEPA and the State of North Carolina have regarding each of the alternatives. This criterion is addressed in the ROD once comments on the RI/FS report and the Proposed Plan have been received.
- **Community Acceptance** - Evaluates the issues and concerns the public may have regarding each of the alternatives. This criterion is addressed in the ROD once comments on the RI/FS report and the Proposed Plan have been received.

protection that Alternatives 3, 4, 5, 6, and 7 provide through remediation systems may not be necessary because minimal risks are associated with surface and subsurface soil contamination, except under a hypothetical future residential exposure scenario.

Compliance with ARARs

Alternative 1 would not comply with chemical-specific ARARs. Alternatives 2, 3, 4, 5, 6, and 7 would comply with chemical-specific ARARs if a waiver of the state groundwater standards is obtained. Alternatives 3, 4, 5, 6, and 7 can be designed to meet all of the location- and action-specific ARARs that apply to them. No location- or action-specific ARARs apply to Alternatives 1 and 2.

Long-term Effectiveness and Permanence

Although residual risks associated with untreated contaminants would be minimal under realistic exposure scenarios, Alternative 1 is the only alternative that would allow residual risk to remain uncontrolled at OU3. Alternative 2 includes adequate and reliable controls to mitigate the potential for human exposure through the use of institutional controls. Alternatives 3, 4, 5, 6, and 7 provide additional long-term effectiveness through treatment and/or removal of contaminated media as well as institutional controls.

Except for Alternative 1, the long-term effectiveness of all the other alternatives is dependent on the administration to the Air Station for institutional controls.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Alternatives 1 and 2 do not involve treatment, so these alternatives would only reduce the toxicity, mobility, or volume of the contaminants via natural attenuation. Alternatives 4 and 7 also do not involve treatment; however, contaminated soil would be excavated and disposed of off site. Alternatives 3, 5, and 6 involve treating and/or containing the contaminated soil in place, so they would reduce the mobility of contaminants, but would not affect toxicity of the contaminants. None of the alternatives would achieve any reduction in volume through treatment and Alternatives 3 and 5 would result in a total increase in volume.

Short-term Effectiveness

Alternatives 4, 5, and 7 create the most risk during implementation. Risks to workers would be increased during the excavation of the contaminated soil. Alternatives 2, 3, 4, 5, 6, and 7 create some minor risks to workers associated with monitoring, but these are insignificant compared to the risks associated with the soil excavation and storage of Alternatives 4, 5, and 7. Implementation of Alternative 1 would create no risks

to workers. Any risks anticipated for any of the alternatives, including any risks to the community, can be reduced with engineered controls. It is anticipated that none of the alternatives would require longer than a year to implement.

Implementability

Implementability is not applicable to Alternative 1. All other alternatives are implementable. Institutional controls are readily implemented. Alternatives 4, 6, and 7 use conventional, well-demonstrated, and commercially available technologies so these alternatives are proven to be implementable and reliable. Alternatives 3 and 5 use fixation/solidification technologies. These technologies are relatively new in their application to remedial efforts. Therefore, treatability studies would be required with these alternatives to determine if proper contaminant retention can be achieved.

Cost

The least to most expensive alternatives, based on estimated net present worth (NPW), are \$0 (Alternative 1), \$470,000 (Alternative 2), \$2.6 million (Alternative 6), \$2.8 million (Alternative 3), \$4.3 million (Alternative 5), \$7.3 million (Alternative 4), and \$16.5 million (Alternative 7).

Summary of the Preferred Alternative

Based on available information, the current understanding of the conditions at OU3, realistic exposure scenarios, and the evaluations made in the preceding section of this PRAP, the preferred remedial action alternative for remediation of the soil and groundwater contamination is institutional controls at Site 6 and Site 7 (Alternative 2). This alternative appears to provide the best balance with respect to the seven CERCLA evaluation criteria described in the previous section of this PRAP. The preferred alternative is anticipated to meet the following objectives:

- Prevent potential exposure to buried waste and contaminated soil.
- Prevent exposure to contaminated groundwater in the surficial aquifer.
- Prevent future potential use of the surficial aquifer.
- Restrict current and future use of OU3.

Based on current potential exposure scenarios and realistic future exposure scenarios, all risks are within the EPA's "acceptable" risk range except for the future hypothetical residential exposure. The majority of this risk is from ingestion of groundwater and ingestion of surface soil. The future residential exposure pathway for groundwater and soil is extremely unlikely because much of OU3 is comprised of a fly ash disposal site.

In addition, ingestion of groundwater from the surficial aquifer by future residents would also be unlikely because this aquifer is not used as a source of drinking water, and the Air Station has a separate potable water supply system.

Institutional controls would consist of maintaining records of the contamination at OU3 in the MCAS Cherry Point Master Plan and designating the area as a restricted or limited use area. Monitoring of groundwater and surface waters to assess the migration of contaminants from OU3 to the environment and to determine the need for future actions would also be conducted. Additionally, this alternative includes installation of fencing and posting of warning signs at Site 7.

Fencing and warning signs would be used to physically limit access to the site. Signs are typically posted at equal intervals along the perimeter of the site and along roads leading to the site. A chain-link fence approximately 8 feet high would be placed around the areas where lead concentrations are greater than 1,300 mg/kg in the surface soils (the approximate boundary of the fly ash disposal area). The fencing and signs would be used to restrict access to soils with lead concentrations above acceptable levels for exposure by current users at OU3. Other chemical concentrations in soils at Site 6 and Site 7 are at acceptable levels for current uses of these sites.

The Master Plan records on the presence of contamination at the site would ensure that, at the time of future land development, the Air Station would be able to take adequate measures to minimize adverse human health and environmental effects. The general area at OU3 would be given a designation in the Master Plan that would prohibit residential use, invasive construction activities, and installation of wells. Other use prohibitions would be included in the Master Plan, as necessary, to protect human health in the environment.

Every 5 years, a site review would be conducted to evaluate the site status and determine if further action was necessary.

COMMUNITY PARTICIPATION

A critical part of the selection of a remedial action alternative is community involvement. The following information is provided to solicit community input into the selection of a remedy for OU3 (Sites 6 and 7).

Public Comment Period

The 30-day public comment period for the OU3 PRAP will begin on Tuesday, July 30, 1996. Written comments should be sent to the following address:

Mr. Lance Laughmiller	Joint Public Affairs Officer
Remedial Project Manager	Marine Corps Air Station
Naval Facilities Engineering Command	or Cherry Point, North Carolina 28533-0013
1510 Gilbert Street	(919) 466-2536/4241
Norfolk, Virginia 23511-2699	
(804) 322-4811	

A public meeting will be held at the where in city/location on Monday, August 12, 1996 at time. Representatives of the DON, MCAS Cherry Point and their consultants, will be available at the meeting to answer questions and accept public comments on the RI/FS and PRAP or remedy for OU3. In addition, an overview of the site characterization will be presented. Members of the public are invited to attend and to make their comments known or to ask questions of officials in attendance.

Meeting minutes will be made available to the public through the information repositories at the libraries listed below. A responsiveness summary (included in the ROD) will be prepared at the conclusion of the comment period to summarize significant comments, criticisms, and new relevant information submitted to MCAS Cherry Point and the DON during the comment period. In addition, the summary will include the responses to each issue/question raised at the public meeting. After the ROD is signed, MCAS Cherry Point and the Navy will publish a notice of availability of the ROD in the list newspapers and place a copy of the ROD (including the responsiveness summary) in each information repository.

Information Repositories

A collection of general information, including the administrative record file, is available to the community in the information repositories located at the following locations:

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MCAS Cherry Point Library
Marine Corps Air Station
PSC Box 8019
Cherry Point, North Carolina 28533-0019
(919) 466-3552

Hours:

Monday - Thursday 9:00 a.m.-9:45 p.m.

Friday: 9:00 a.m.-5:45 p.m.

Saturday: 10:00 a.m.-3:45 p.m.

Sunday: 1:00 p.m.-8:45 p.m.

Havelock Public Library
300 Miller Boulevard
Havelock, North Carolina 28532
(919) 447-7509

Hours:

Monday to Friday: 10:00 a.m.-8:00 p.m.

Saturday: 10:00 a.m.-1:00 p.m.

Sunday: Closed

**IF YOU HAVE ANY QUESTIONS ABOUT OU3
PLEASE CONTACT ONE OF THE FOLLOWING:**

Environmental Affairs Department
Marine Corps Air Station PSC Code 8006
Cherry Point, North Carolina 28533-0006
Attention: Ms. Renee Henderson
(919) 466-5391

Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699
Attention: Mr. Lance Laughmiller, Code 1823
(804) 322-4811

U.S. EPA, Region IV
Waste Management Division
345 Courtland Street, NE
Atlanta, Georgia
Attention: Ms. Gena Townsend
(404) 347-3555 (ext. 6459)

NC Department of Environmental Health and Natural Resources
Superfund Section
Suite 150
401 Oberlin Road
Raleigh, North Carolina 27605
Attention: Ms. Linda Raynor
(919) 733-2801 (ext. 340)

Joint Public Affairs Office
Marine Corps Air Station
Cherry Point, North Carolina 28533-0013
(919) 466-2536/4241

MAILING LIST

If you are not on the mailing list and would like to receive future publications pertaining to OU3 as they become available please call or complete, detach, and mail a copy of this form to the point of contact listed below.

Public Affairs Officer
Joint Public Affairs Office
Marine Corps Air Station
Cherry Point, North Carolina 28533-0013

Name _____

Address _____

Affiliation _____

Phone () _____